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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,998	01/11/2001	Wayne J. Schmidt	291958118US3	1313

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EXAMINER

UNDERWOOD, DONALD W

ART UNIT PAPER NUMBER

3652

DATE MAILED: 05/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/759,970

Applicant(s)

Schmidt et al

Examiner

Underwood

Art Unit

3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ³/₁ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/04/02 & 02/07/03
- 2a) ☐ This action is FINAL.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 & 31-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-20 & 31-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Detailed Action

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 15, 16, 18, 19, 31 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama et al in view of Skrobak and Miyamoto et al.

Ueyama's vertical member moves vertically and rotates. While Ueyama is silent on his actuator, it would have been obvious to use actuators in view of the teaching in Skrobak (elements 18, 24 and 20).

Ueyama's figure 2 discloses hands for handling wafers. It would have been to rotatably mount these hands to provide for wafer inventing to permit treatment to both sides of a wafer.

Regarding claim 31, 34 in Skrobak is a linear actuator.

3. Claims 3, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama et al in view of Skrobak and Miyamoto et al as applied to claim 1 above, and further in view of the following comments.

Note Ueyama, column 8, lines 40, 41, sets forth that the arm moves back and forth and figure 6 in Ueyama shows that articulated links structure can be used to provide this movement. It is inherent that Ueyama uses an actuator to articulate the arm. Moreover, Skrobak teaches using an actuator to articulate an arm and render obvious the use of such in Ueyama.

Art Unit: 3652

4. Claims 5 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama et al in view of Skrobak and Miyamoto et al as applied to claim 1 above, and further in view of Oda et al.

It would have been obvious to use any conventional track in Ueyama including that claimed by applicants in view of the teaching in Oda (elements 7, 8).

5. Claims 6-10, 16, 35, 36 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama et al in view of Shrobak and Miyamoto et al as applied to claim 1 above, and further in view of Olson.

It would have been an obvious substitution of equivalents to use a gripper as taught by Olson in lieu of the gripper in Ueyama.

Regarding claim 39, note figure 6 in Ueyama discloses the use of articulated arms.

✓ 6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama et al in view of Shrobak and Miyamoto et al as applied to claim 1 above, and further in view of Lange.

It would have been obvious to use any conventional sensor to sense a wafer presence on the end effector in Ueyama including one as taught by Lange (element 11).

7. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama et al in view of Skrobak, Miyamoto et al and Lange as applied to claim 11 above, and further in view of Olson.

It would have been an obvious substitution of equivalents to use a gripper as taught by Olson in lieu of that in Ueyama.

Art Unit: 3652

8. Claims 32, 33, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama et al in view of Skrobak and Miyamoto et al as applied to claim 1 above, and further in view of Nam et al.

It would have been obvious to use any conventional end effector for those in Ueyama including a paddle as taught by Nam.

The exact location of the raised areas would be an obvious matter of design choice since one arrangement would provide no unobvious result over another.

9. Claims 40 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama et al in view of Miyamoto et al.

It would have been obvious to provide a flip joint to the end effectors in Ueyama (figure 2) to provide for inversion of the workpiece.

Regarding claim 44, note Ueyama figure 6 illustrates articulated arms for Ueyama.

10. Claims 41, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama et al in view of Miyamoto et al as applied to claim 40 above, and further in view of Nam et al.

It would have been obvious to use any conventional end effector for those in Ueyama including a paddle as taught by Nam.

Regarding claims 42 and 43, the exact location of the raised areas would be an obvious matter of design choice since one arrangement would provide no unobvious result over another.

Art Unit: 3652

11. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama et al in view of Miyamoto et al as applied to claim 40 above, and further in view of Oda et al.

It would have been obvious to use any conventional track in Ueyama including that claimed by applicants in view of the teaching in Oda (elements 7, 8).

12. Any inquiry concerning this communication should be directed to D Underwood at telephone number (703) 308-1113.

Underwood/kn
May 1, 2003

Donald W. Underwood 05/05/03
DONALD W. UNDERWOOD
PRIMARY EXAMINER